

Appl. No. 10/735,613
Amendment dated: July 2, 2007
Reply to OA of: March 2, 2007

REMARKS

This is in response to the Official Action of March 2, 2007. Applicant has amended the claims in order to more precisely define the scope of the present invention, taking into consideration the outstanding Official Action.

Specifically, Applicant has amended claims 14 and 15 to recite a permanent magnet ring wherein a magnetic flux from the magnetic poles of each of the unit permanent uniaxial anisotropic magnets of the permanent magnet ring forms a closed magnetic path along the circumference of the permanent magnet ring and a leakage magnetic flux acts on the area inside of the permanent magnet ring. Support for these amendments may be found throughout the specification as originally filed, including, e.g., page 32, line 13 through page 33, line 18 and Figure 24. Applicant respectfully submit that no new matter is introduced into the application by the amendments to the claims presented herein and the claims are therefore in compliance with the relevant portions of 35 U.S.C. §112.

Turning now the prior art rejections set forth in the outstanding Official Action, the Official Action begins by rejecting claim 15 under 35 U.S.C. §103(a) as being unpatentable over the English translation of Sakurai et al. (JP 11-103915) in view of Takeshita et al. (US Pat. No. 4,981,532) and Okinaka et al. (US Pat. No. 4,067,783). After careful consideration of the grounds for this rejection, Applicant most respectfully traverses the rejection in light of the amendments to the claims and the following comments.

Applicant wishes to direct the Examiner's attention to the basic requirements of a prima facie case of obviousness as set forth in the MPEP § 2143. This section states that to establish a prima facie case of obviousness, three basic criteria first must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

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The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Section 2143.03 states that all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicant also notes MPEP §2143.01, which states in part that, if a proposed modification would render the prior art invention unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Applicant also most respectfully directs the Examiner's attention to MPEP § 707.07(f) wherein it is stated that "[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it."

The Official Action urges that Sakurai and Takeshita disclose or suggest elements of claim 15 as set forth in detail at Paragraph 6 of the Official Action dated May 2, 2006. The outstanding Official Action supplements the comments set forth in the previous Official Action by urging that Sakurai teaches at least some of the metal beads of the magnet ring can be solid magnetic bodies and further alleges that using only solid magnetic bodies in the magnet ring of Sakurai would have been a matter of obvious design choice. Applicant respectfully traverses this position.

The Official Action cites paragraph [0008] of the Sakurai translation as disclosing magnet balls 5 that are "magnets as a whole". However, as alluded to by the Official Action, Sakurai only discloses using magnet balls 5 in conjunction with other unit permanent magnets that are not "magnets as a whole". This configuration is illustrated in, e.g., Figure 3(a) of Sakurai, wherein the magnet ball 5 is surrounded on either side

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by balls comprising non-magnetic material 1 and magnet material 2. In order to address the failure of Sakurai to disclose using only solid magnetic bodies in the magnet ring, the Official Action urges that using only magnet balls 5 in the magnet ring would be a matter of obvious design choice.

Applicant responds by respectfully asserting that the modification proposed by the Official Action would not be a matter of obvious design choice given the disclosure in Sakurai teaching against such a configuration. Specifically, Applicant points to paragraph [0006] of Sakurai, which states that a primary aim of the invention disclosed therein is to prevent the attraction of various peripheral magnetic substances by reducing the number of magnetic lines spread around the bracelet. In order to accomplish this, Sakurai has developed balls that consists of non-magnetic outer shells with magnetic materials inserted therein. In other words, Sakurai reduces the number of additional magnetic lines by only allowing the magnet material to be exposed on a small portion of the surface of the sphere. This configuration is also disclosed as strengthening the attraction force in the attracting direction of the balls.

In Figure 3(a), Sakurai contemplates replacing some of the previously described spheres with solid magnetic bodies. When used in combination with the balls described in paragraph [0006] of Sakurai, the configuration still substantially reduces the number of magnetic lines emanating from the bracelet in different directions. With respect to a bracelet made of only solid magnet bodies, Sakurai clearly refrains from describing such an embodiment because such a configuration would not accomplish the aim of the invention disclosed in Sakurai. That is to say, using all solid magnetic bodies would not reduce magnet lines emanating from the bracelet and therefore would not prevent the attraction of various peripheral magnetic substance. Accordingly, Applicant respectfully submits that the modification proposed in the Official Action would not be a matter of obvious design choice, since Sakurai clearly teaches away from the alleged configuration.

Furthermore, Applicant respectfully submits that neither Takeshita nor Okinaka remedy or overcome the deficiency in Sakurai, i.e., the failure to disclose the use of only

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solid magnetic bodies in the magnet ring and the teaching against using only solid magnetic bodies.

Therefore, as neither Sakurai, Takeshita nor Okinaka, either standing alone or when taken in combination, disclose or suggest every element of claim 15, Applicant respectfully submits that a proper §103 rejection according to the guidelines set forth in MPEP §2143 has not been established. It is therefore respectfully requested that the §103 rejection of claim 15 over Sakurai, Takeshita and Okinaka be withdrawn.

The Official Action next rejects claim 14 under 35 U.S.C. §103(a) as being unpatentable over Sakurai in view of Takeshita and Okinaka as applied to the rejection of claim 15 discussed above and further in view of Hart (US Pat. NO. 5,195,335), Yellen (US Pat. No. 6,427,486), Lu (US Pub. Pat. App. No. 2004/0111005) and Jacobson (US Pat. No. 6,634,067). Applicant has carefully considered this rejection but most respectfully traverses the rejection in light of the amendments to the claims and the following comments.

As indicated in the Official Action, the rejection of claim 14 relies upon as its basis the comments made in the Official Action with respect to the rejection of claim 15 over Sakurai, Takeshita and Okinaka. Thus, as with the rejection of claim 15, the Official Action urges that it would have been a matter of obvious design choice to use all solid magnetic bodies in the magnet ring of Sakurai. However, as discussed in detail above, Applicant respectfully submits that it would not be obvious to make the modification proposed in the Official Action because Sakurai is specifically concerned with reducing the number of magnetic lines emanating from the magnet ring. Replacing all of the balls of the magnet ring with solid magnet bodies would increase the number of magnet lines in all directions, since there would no longer be non-magnetic material encasing the magnetic material and limiting the number of magnet lines to only the area where the magnetic material is exposed to the surface of the ball.

Furthermore, Applicant respectfully submits that neither Hart, Yellen, Lu nor Jacobson remedy or overcome the deficiency in Sakurai, i.e., the failure to disclose the

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use of only solid magnetic bodies in the magnet ring and the teaching against using only solid magnetic bodies.

Therefore, as neither Sakurai, Takeshita, Okinaka, Hart, Yellen, Lu nor Jacobson either standing alone or when taken in combination, disclose or suggest every element of claim 14, Applicant respectfully submits that a proper §103 rejection according to the guidelines set forth in MPEP §2143 has not been established. It is therefore respectfully requested that the §103 rejection of claim 14 over Sakurai, Takeshita Okinaka, Hart, Yellen, Lu and Jacobson be withdrawn.

The Official Action rejects claim 16 under 35 U.S.C. §103(a) as being unpatentable over Sakurai in view of Takeshita and Okinaka as applied to the rejection of claim 15 discussed above and further in view of Hoffman (US Pat. No. 4,517,217). Applicant has carefully considered this rejection, but most respectfully traverse the rejection in view of the amendments to the claims and the following comments.

As indicated in the Official Action, the rejection of claim 16 relies upon as its basis the comments made in the Official Action with respect to the rejection of claim 15 over Sakurai, Takeshita and Okinaka. Thus, as with the rejection of claim 15, the Official Action urges that it would have been a matter of obvious design choice to use all solid magnetic bodies in the magnet ring of Sakurai. However, as discussed in detail above, Applicant respectfully submits that it would not be obvious to make the modification proposed in the Official Action because Sakurai is specifically concerned with reducing the number of magnetic lines emanating from the magnet ring. Replacing all of the balls of the magnet ring with solid magnet bodies would increase the number of magnet lines in all directions, since there would no longer be non-magnetic material encasing the magnetic material and limiting the number of magnet lines to only the area where the magnetic material is exposed to the surface of the ball.

Furthermore, Applicant respectfully submits that neither Takeshita, Okinaka nor Hoffman remedy or overcome the deficiency in Sakurai, i.e., the failure to disclose the use of only solid magnetic bodies in the magnet ring and the teaching against using only solid magnetic bodies.

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Therefore, as neither Sakurai, Takeshita, Okinaka, nor Hoffman, either standing alone or when taken in combination, disclose or suggest every element of claim 16, Applicant respectfully submits that a proper §103 rejection according to the guidelines set forth in MPEP §2143 has not been established. It is therefore respectfully requested that the §103 rejection of claim 16 over Sakurai, Takeshita, Okinaka, and Hoffman be withdrawn.

Finally, with respect to the language added to claims 14 and 15, Applicant notes that these claims now recite a permanent magnet ring wherein a magnetic flux from the magnetic poles of each of the unit permanent uniaxial anisotropic magnets of the permanent magnet ring forms a closed magnetic path along the circumference of the permanent magnet ring and a leakage magnetic flux acts on the area inside of the permanent magnet ring. The problem to be solved by the present invention is to have magnetic flux from magnetic poles form a closed magnetic path near a portion of the body where the ring is worn, e.g., an arm, an ankle and the neck, so that the flux from the magnetic poles serves to strongly connect the unit permanent magnets while not acting directly on the human body, while the leakage magnetic flux acts on the human body without a strong magnetic force acting directly on it.

However, Sakurai does not address this problem, and in fact its objective appears to be contrary to the objective of the present invention, i.e., Sakurai aims to eliminate any magnetic force lines not acting to keep the components of the bracelet together. In Sakurai, the problem to be solved is the provision of a magnetic bracelet comprising balls, wherein the balls can be different colors and sizes such that the appearance of the bracelet can be varied, and there is no disclosure of having leakage flux act on the human body. Similarly, Takeshita fails to address the problem solved by the presently claimed invention since Takeshita only discloses producing a rare earth iron boron based alloy powder having excellent magnetic characteristics. Applicant also respectfully submits that Okinaka fails to address the problem solved by the presently claimed invention.

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Because the prior art references do not recognize the problem solved by the presently claimed invention, the prior art is incapable of disclosing or suggesting the claimed invention. Specifically, in the presently claimed invention, N poles or S poles are formed on the surface of a first side orthogonal to an easily magnetizing direction and S poles or N poles are formed on the surface of a second side opposite the first side. This is accomplished by magnetizing in an easily magnetizing direction at the time of sintering a raw material of neodymium iron boron magnets in a magnetic field, so that the permanent magnets are made to be uniaxial anisotropic magnets and the magnets are attracted to each other in a point contact manner by the magnetic poles on the curved side surfaces so as to be connected in a ring shape. The magnetic force from the magnetic poles in the magnetizing direction is strong and the ring shape can therefore be kept firmly even when worn on a part of the body. The magnetic flux from the magnetic poles forms a closed magnetic path along the ring shape that does not act directly on the body, but the leakage magnetic flux acts on the human body in a manner suitable for improving blood circulation and the like without the risk of causing unexpected adverse side effects. It is the leakage flux (which Sakurai appears to aim to eliminate) that further differentiates the claimed invention from the prior art references. Accordingly, Applicant respectfully submits that the presently claimed invention is patentable over the references of record.

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In view of the above comments and further amendments to the claims, favorable reconsideration and allowance of all of the claims now present in the application are most respectfully requested.

Respectfully submitted,
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